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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,230	11/15/2000	Sung-kyu Choi	Q61098	8676

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Washington, DC 20037-3213

EXAMINER

DIEP, NHON THANH

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 12/15/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,230

Applicant(s)

CHOI, SUNG-KYU

Examiner

Nhon T Diep

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/15/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6. 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura et al (EP 0 753 968 A2), cited by the applicant.

Matsumura et al discloses a method of processing transmission data to inhibit error propagation in a digital image data communication system, the method comprising: (a) inputting an image frame from an external source (fig. 2, input to 1a); (b) checking for feedback error information including the location of an erroneous block on a first compressed image frame detected during decoding by a decoder, the feedback error information received via a communication network (fig. 3, el. 206, col. 7, ln. 1 – col. 8, ln. 13); (c) if it is determined in step (b) that there is feedback error information, intracoding an erroneous block, the location of which is included in the feedback error information, and its search range, which is referred to to encode the erroneous block using an intercoding method, among the image frame input in step (a), thereby constituting a second compressed image frame (fig. 4, el. 211-212 and col. 7, ln. 12-17, col. 8, ln. 49 – col. 9, ln. 6; search range = a portion that maybe affected by the distortion); and (d) transmitting the compressed image frame constituted in step (c), via a communication network (col. 10, ln. 27-30) as specified in claims 1 and 7; wherein the

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error block location included in the feedback error information in step (b) is set in units of 16 (pixel) x 16 (pixel) macro blocks (Col. 9, ln. 25-31; macroblock is typically 16 X 16 pixels) as specified in claims 2, 6 and 8; wherein the search range in step (c) includes 16 pixels or 32 pixels in four directions on the basis of the erroneous block (col. 9, ln. 32-40) as specified in claims 3 and 6; wherein the feedback error information in step (b) is associated with the image frame immediately preceding a current image frame (col. 12, ln. 9-26) as specified in claim 4; a method of processing transmission data to inhibit error propagation in a digital image data communication system, the method comprising: (a) inputting an image frame from an external source (fig. 2, input to 1a); (b) when the image frame input in step (a) is the first image frame in a specific sequence, encoding the entire image frame using an intracoding method, to constitute a compressed image frame (col. 7, ln. 1-8< first frame of scene change = first frame of specific sequence); (c) when the image frame input in step (a) is not the first image frame in a specific sequence, checking feedback error information including the location of an erroneous block on a compressed image frame detected during decoding by a decoder, the feedback error information received via a communication network; (d) if it is determined in step (c) that there is feedback error information, intracoding an erroneous block, the location of which is included in the feedback error information, and its search range, which is referred to to encode the erroneous block using an intercoding method, among the image frame input in Step (a), while the remaining area of the input image frame is encoded by intercoding, thereby constituting a compressed image frame, and if it is determined in step (c) that no feedback error information is

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received, intracoding block(s) selected by a predetermined method from among the blocks of the image frame input in step (a), and intercoding the remaining blocks, thereby constituting a compressed image frame; and (e) transmitting the compressed image frame constituted in step (b) or (d), via a communication network (fig. 3, el. 206, col. 7, ln. 1 – col. 8, ln. 13); fig. 4, el. 211-212 and col. 7, ln. 12-17, col. 8, ln. 49 – col. 9, ln. 6; search range = a portion that maybe affected by the distortion; col. 10, ln. 27-30) as specified in claim 5.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al.

As applied to claims 1 and 5 above, it is noted that Matsumura et al does not particularly disclose a computer-readable recording medium for recording a computer program which is executed in a computer for processing transmission data to inhibit error propagation in a digital image data communication system as recited in claims 9-11. Official Notice was taken with regard to the using of computer softwares stored onto a computer readable medium to perform encoding and decoding tasks which is well known in the encoding and decoding art and therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the

system of Matsumura et al by using computer software for performing encoding and decoding tasks. Doing so would help to reduce the cost of hardware in performing the same tasks.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Shikakura (US 5,614,847) discloses an image processing apparatus which conceals image data in accordance with motion data.

b. Zhu (US 5,550,847) discloses a device and method of signal loss recovery for realtime and/or interactive communications.

c. Matsumi et al (US 5,416,600) discloses a concealing method of video signal.

d. Fujiyama (US 5,333,137) discloses a coding system having data controlling mechanism activated when error is detected.

e. Iwami et al (US 5,528,284) discloses a video communication method having refresh function of coding sequence and terminal devices thereof.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T Diep whose telephone number is 703-305-4648. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on 703 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703 87209314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-2600.

ND
8 Dec 2003


NHON DIEP
PRIMARY EXAMINER